

Notice of Allowability

Application No.

10/716,875

Applicant(s)

HYUGA, HIROAKI

Examiner

Tom V. Sheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/13/2006.
2. ☒ The allowed claim(s) is/are 1 and 3-25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. Claims 1 and 3-25 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The invention is directed to an exposure apparatus using an organic EL array. The luminous intensity and emission time of each EL element is set according to input image data and set values are stored. The organic EL elements of respective colors have different luminous intensities set so that degradation rates are substantially the same among the three colors of R, G and B. Control signals for driving the EL array are generated based on the set values.

Independent claim 1 identifies, inter alia, the uniquely distinct features "a filter disposed between the light emitting element array and a photosensitive material to be exposed, and having transmittance adjusted so that exposure intensity corresponding to spectral sensitivity of the photosensitive material can be obtained."

Independent claim 11 identifies, inter alia, the uniquely distinct features "plural types of light emitting elements, numbers of which are respectively determined so as to correspond to a ratio of a number of times of multiple exposure for the respective types of light emitting elements, which is obtained from spectral sensitivities of a photosensitive material to be exposed with respect to the respective types of light emitting elements and luminous intensities of the respective types of light emitting elements, are arranged so as to align along the subscanning direction."

Independent claim 20 identifies, inter alia, the uniquely distinct features "wherein the control unit computes cumulative emission amounts with respect to each of the plural types of light emitting elements, and at the time of exposure, generates control signals for causing the plural types of light emitting elements to emit light according to image data, and, after exposure is finished, in order to make a cumulative emission amount of a light emitting element having the greatest cumulative emission amount and cumulative emission amounts of other light emitting elements equal with respect to all of the plural types of light emitting elements, generates control signals for causing at least one of the other light emitting elements to emit light."

Jongman et al. (US 2004/0021423) teaches an organic EL type display of R, B and G array elements. Jongman specifically teaches equalizing the rates of decay among different color elements by using different drive pulse widths. However, Jongman does not teach any use as an exposure apparatus. Specifically, there is no teaching on adjusting the transmittance of the color filters so that exposure intensity corresponding to spectral sensitivity of the photosensitive material can be obtained, determining the numbers of light emitting elements of each type respectively so as to correspond to a ratio of a number of times of multiple exposure for the respective types of light emitting elements, which is obtained from spectral sensitivities of a photosensitive material to be exposed with respect to the respective types of light emitting elements and luminous intensities of the respective types of light emitting elements, or that after exposure is finished, in order to make a cumulative emission amount of a light emitting element having the greatest cumulative emission amount and

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cumulative emission amounts of other light emitting elements equal with respect to all of the plural types of light emitting elements, generates control signals for causing at least one of the other light emitting elements to emit light. Thus, Jongman does not teach or suggest above claimed limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
